SEQUENCE LISTING

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STAHL, MARK
SULLIVAN, FRANCIS X.

<120> CRYSTAL OF A GDP-FUCOSE SYNTHETASE POLYPEPTIDE

<130> W2025-701740

<140> 10/090,879
<141> 2002-03-04

<150> 09/373,432
<151> 1999-08-13

<150> 60/096,452
<151> 1998-08-13

<160> 3

<170> PatentIn version 3.5

<210> 1
<211> 338
<212> PRT
<213> Escherichia coli

<400> 1

Met	Arg	Val	Leu	Val	Thr	Gly	Gly	Ser	Gly	Tyr	Ile	Gly	Ser	His	Thr
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Cys	Val	Gln	Leu	Leu	Gln	Asn	Gly	His	Asp	Val	Ile	Ile	Leu	Asp	Asn
			20					25					30		
Leu	Cys	Asn	Ser	Lys	Arg	Ser	Val	Leu	Pro	Val	Ile	Glu	Arg	Leu	Gly
		35					40					45			
Gly	Lys	His	Pro	Thr	Phe	Val	Glu	Gly	Asp	Ile	Arg	Asn	Glu	Ala	Leu
	50					55					60				
Met	Thr	Glu	Ile	Leu	His	Asp	His	Ala	Ile	Asp	Thr	Val	Ile	His	Phe
65					70					75					80
Ala	Gly	Leu	Lys	Ala	Val	Gly	Glu	Ser	Val	Gln	Lys	Pro	Leu	Glu	Tyr
				85					90					95	
Tyr	Asp	Asn	Asn	Val	Asn	Gly	Thr	Leu	Arg	Leu	Ile	Ser	Ala	Met	Arg
			100					105					110		

Ala Ala Asn Val Lys Asn Phe Ile Phe Ser Ser Ser Ala Thr Val Tyr
115 120 125

Gly Asp Asn Pro Lys Ile Pro Tyr Val Glu Ser Phe Pro Thr Gly Thr
130 135 140

Pro Gln Ser Pro Tyr Gly Lys Ser Lys Leu Met Val Glu Gln Ile Leu
145 150 155 160

Thr Asp Leu Gln Lys Ala Gln Pro Asp Trp Ser Ile Ala Leu Leu Arg
165 170 175

Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly Asp Met Gly Glu Asp
180 185 190

Pro Gln Gly Ile Pro Asn Asn Leu Met Pro Tyr Ile Ala Gln Val Ala
195 200 205

Val Gly Arg Arg Asp Ser Leu Ala Ile Phe Gly Asn Asp Tyr Pro Thr
210 215 220

Glu Asp Gly Thr Gly Val Arg Asp Tyr Ile His Val Met Asp Leu Ala
225 230 235 240

Asp Gly His Val Val Ala Met Glu Lys Leu Ala Asn Lys Pro Gly Val
245 250 255

His Ile Tyr Asn Leu Gly Ala Gly Val Gly Asn Ser Val Leu Asp Val
260 265 270

Val Asn Ala Phe Ser Lys Ala Cys Gly Lys Pro Val Asn Tyr His Phe
275 280 285

Ala Pro Arg Arg Glu Gly Asp Leu Pro Ala Tyr Trp Ala Asp Ala Ser
290 295 300

Lys Ala Asp Arg Glu Leu Asn Trp Arg Val Thr Arg Thr Leu Asp Glu
305 310 315 320

Met Ala Gln Asp Thr Trp His Trp Gln Ser Arg His Pro Gln Gly Tyr
325 330 335

Pro Asp

<210> 2
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<212> PRT
<213> Escherichia coli

<400> 2

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Lys Gln Arg Val Phe Ile Ala Gly His Arg Gly Met Val Gly Ser Ala
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Ile Arg Arg Gln Leu Glu Gln Arg Gly Asp Val Glu Leu Val Leu Arg
            20                  25                  30

Thr Arg Asp Glu Leu Asn Leu Leu Asp Ser Arg Ala Val His Asp Phe
        35                  40                  45

Phe Ala Ser Glu Arg Ile Asp Gln Val Tyr Leu Ala Ala Ala Lys Val
    50                  55                  60

Gly Gly Ile Val Ala Asn Asn Thr Tyr Pro Ala Asp Phe Ile Tyr Gln
65                  70                  75                  80

Asn Met Met Ile Glu Ser Asn Ile Ile His Ala Ala His Gln Asn Asp
                85                  90                  95

Val Asn Lys Leu Leu Phe Leu Gly Ser Ser Cys Ile Tyr Pro Lys Leu
            100                 105                 110

Ala Lys Gln Pro Met Ala Glu Ser Glu Leu Leu Gln Gly Thr Leu Glu
        115                 120                 125

Pro Thr Asn Glu Pro Tyr Ala Ile Ala Lys Ile Ala Gly Ile Lys Leu
    130                 135                 140

Cys Glu Ser Tyr Asn Arg Gln Tyr Gly Arg Asp Tyr Arg Ser Val Met
145                 150                 155                 160

Pro Thr Asn Leu Tyr Gly Pro His Asp Asn Phe His Pro Ser Asn Ser
                165                 170                 175

His Val Ile Pro Ala Leu Leu Arg Arg Phe His Glu Ala Thr Ala Gln
            180                 185                 190

Asn Ala Pro Asp Val Val Val Trp Gly Ser Gly Thr Pro Met Arg Glu
        195                 200                 205
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Phe Leu His Val Asp Asp Met Ala Ala Ala Ser Ile His Val Met Glu
210 215 220

Leu Ala His Glu Val Trp Leu Glu Asn Thr Gln Pro Met Leu Ser His
225 230 235 240

Ile Asn Val Gly Thr Gly Val Asp Cys Thr Ile Arg Glu Leu Ala Gln
245 250 255

Thr Ile Ala Lys Val Val Gly Tyr Lys Gly Arg Val Val Phe Asp Ala
260 265 270

Ser Lys Pro Asp Gly Thr Pro Arg Lys Leu Leu Asp Val Thr Arg Leu
275 280 285

His Gln Leu Gly Trp Tyr His Glu Ile Ser Leu Glu Ala Gly Leu Ala
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Ser Thr Tyr Gln Trp Phe Leu Glu Asn Gln Asp Arg Phe
305 310 315

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<212> PRT
<213> Homo sapiens

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Met Arg Ile Leu Val Thr Gly Gly Ser Gly Leu Val Gly Lys Ala Ile
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Gln Lys Val Val Ala Asp Gly Ala Gly Leu Pro Gly Glu Asp Trp Val
20 25 30

Phe Val Ser Ser Lys Asp Ala Asp Leu Thr Asp Thr Ala Gln Thr Arg
35 40 45

Ala Leu Pro Glu Lys Val Gln Pro Thr His Val Ile His Leu Ala Ala
50 55 60

Met Val Gly Gly Leu Phe Arg Asn Ile Lys Tyr Asn Leu Asp Phe Trp
65 70 75 80

Arg Lys Asn Val His Met Asn Asp Asn Val Leu His Ser Ala Phe Glu
85 90 95

Val Gly Ala Arg Lys Val Val Ser Cys Leu Ser Thr Cys Ile Phe Pro
100 105 110

Asp Lys Thr Thr Tyr Pro Ile Asp Glu Thr Met Ile His Asn Gly Pro
115 120 125

Pro His Asn Ser Asn Phe Gly Tyr Ser Tyr Ala Lys Arg Met Ile Asp
130 135 140

Val Gln Asn Arg Ala Tyr Phe Gln Gln Tyr Gly Cys Thr Phe Thr Ala
145 150 155 160

Val Ile Pro Thr Asn Val Phe Gly Pro His Asp Asn Phe Asn Ile Glu
165 170 175

Asp Gly His Val Leu Pro Gly Leu Ile His Lys Val His Leu Ala Lys
180 185 190

Ser Ser Gly Ser Ala Leu Thr Val Trp Gly Thr Gly Asn Pro Arg Arg
195 200 205

Gln Phe Ile Tyr Ser Leu Asp Leu Ala Gln Leu Phe Ile Trp Val Leu
210 215 220

Arg Glu Tyr Asn Glu Val Glu Pro Ile Ile Leu Ser Val Gly Glu Glu
225 230 235 240

Asp Glu Val Ser Ile Lys Glu Ala Ala Glu Ala Val Val Glu Ala Met
245 250 255

Asp Phe His Gly Glu Val Thr Phe Asp Thr Thr Lys Ser Asp Gly Gln
260 265 270

Phe Lys Lys Thr Ala Ser Asn Ser Lys Leu Arg Thr Tyr Leu Pro Asp
275 280 285

Phe Arg Phe Thr Pro Phe Lys Gln Ala Val Lys Glu Thr Cys Ala Trp
290 295 300

Phe Thr Asp Asn Tyr Glu Gln Ala Arg Lys
305 310